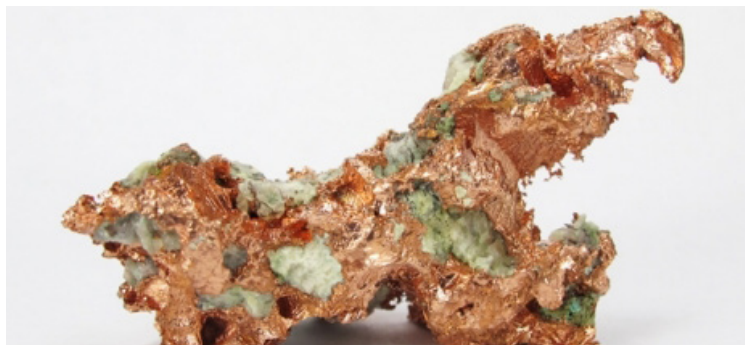


## Health Facts about Copper Levels in Drinking Water



*Raw Form*



*Manufactured Product*

### What is Copper?

Copper is a reddish metal that is naturally occurring in rock, sediment, soil, water and air. Commercially, it is used in a number of products, including as an agricultural pesticide, to control algae in lakes and reservoirs, plus plumbing pipes and electrical wiring.

### Health benefits:

Copper in our diet is necessary for good health and an essential element for all living organisms. On average, adults may consume about 1000 micrograms of copper per day ( $\mu\text{g}/\text{day}$ ). Drinking water normally contributes approximately 150  $\mu\text{g}/\text{day}$ . Levels of copper found naturally in ground water and surface water are generally very low; about 4 micrograms of copper in one liter of water ( $\mu\text{g}/\text{l}$ ) or less.

### Health risks due to high level exposure:

Very large single or long term exposure to high levels of copper may harm your health.

**Immediate effects** from drinking water which contains high levels of copper include vomiting, diarrhea, stomach cramps and nausea. The seriousness of the effects can be expected to increase with increased copper levels or length of exposure.

**Long-term exposure** to on-going very high levels of copper in drinking water has been found to cause kidney and liver damage in some people.

Children under one year of age are more sensitive to copper because it is not easily removed from their system. People with liver damage or Wilson's disease are highly susceptible to copper toxicity.

Copper levels may increase significantly if corrosive water comes in contact with copper plumbing and copper-containing fixtures in the water distribution system. This normally occurs if corrosive water remains motionless in the plumbing system for six hours or more. Copper levels in drinking water increase with the corrosivity of the water and the length of time it remains in contact with the plumbing.

Higher copper levels have sometimes been noted in new homes constructed with copper plumbing. Copper levels tend to decrease with time, as minerals in the water build up inside the pipe, forming a natural barrier between the water and plumbing materials.

### Steps to take to reduce exposure in Drinking Water:

1. Run your water to flush out copper
2. Use cold water to cook and prepare baby formula
3. Identify and replace plumbing pipes and fixtures containing copper
4. Test your water; if copper levels are high look for alternative sources or treatment of water copper

A Public Notice is not required for a copper exceedance, ADEQ has developed this factsheet to better inform you of potential health risk related to copper. If you have any questions regarding your drinking water, contact your water service provider.